## 2016 INDIANA DUNES SCIENCE CONFERENCE: CELEBRATING 100 YEARS OF RESEARCH IN THE INDIANA DUNES

# Ivy Tech Community College –Valparaiso Campus Auditorium April 6 - 8:30 a.m. – 5:00 p.m.

#### 8:15 Registration

#### 8:45 Welcome

8:50 - ACO SIKOSKI, PRESIDENT, IVY TECH COMMUNITY COLLEGE - VALPARAISO CAMPUS

**9:00 -** Paul Labovitz, Superintendent, Indiana Dunes National Lakeshore

#### **Oral Presentations**

#### 9:10 A Look Back

THE ECOLOGY OF INDIANA DUNES - PAST, PRESENT AND FUTURE RESEARCH AND CONSERVATION DIRECTIONS - NOEL B. PAVLOVIC, U.S.G.S. GREAT LAKES SCIENCE CENTER

Sand Mining in and around the Indiana Dunes National Lakeshore - KENNETH J. SCHOON, INDIANA UNIVERSITY NORTHWEST

Investigations of the Hydrologic Resources of the Indiana Dunes National Lakeshore near Great Marsh, 1992 through 2015 - David C. Lampe, USGS Indiana-Kentucky Water Science Center

#### 10:10 Break

#### 10:25 Biodiversity

EXPLORING AQUATIC INSECT BIODIVERSITY AT THE INDIANA DUNES NATIONAL LAKESHORE – DESIREE ROBERTSON, FIELD MUSEUM OF NATURAL HISTORY & IVY TECH COMMUNITY COLLEGE; R. EDWARD DEWALT AND ERIC SOUTH, UNIVERSITY OF ILLINOIS; JOY MARBURGER AND WENDY SMITH, INDIANA DUNES NATIONAL LAKESHORE; VICTORIA BRINSON, VOLUNTEER

New Insights into the Fungal Biodiversity of the Indiana Dunes National Lakeshore - Peter Avis, Indiana University Northwest

MAXIMIZATION OF SPECIES RICHNESS AS A CONSERVATION GOAL DURING MANAGEMENT OF INDIANA DUNES LANDSCAPES - RALPH GRUNDEL AND NOEL PAVLOVIC, U.S.G.S. GREAT LAKES SCIENCE CENTER

ASSESSING THE CONDITION OF MILLER WOODS USING AN INDEX OF BIOTIC INTEGRITY FOR VERNAL PONDS AND SMALL PALUSTRINE WETLANDS BASED ON FISH, CRAYFISH, AND AMPHIBIAN ASSEMBLAGES, SOUTHERN LAKE MICHIGAN - THOMAS P. SIMON, INDIANA STATE UNIVERSITY AND CHARLES C. MORRIS, INDIANA DUNES NATIONAL LAKESHORE

#### 11:45 Panel Discussion

#### 12:00 Lunch and Poster Session

\*\*\*\*\*SEE LIST OF POSTER PRESENTATIONS BELOW

#### 1:00 Implications for Management

THE HISTORY AND RESTORATION OF COWLES BOG – DANIEL MASON, INDIANA DUNES NATIONAL LAKESHORE

A COMPREHENSIVE SURVEY FOR EARLY DETECTION AND RESPONSE TO INVASIVE SPECIES IN INDIANA'S LAKE MICHIGAN TRIBUTARIES - THOMAS P. SIMON, INDIANA STATE UNIVERSITY

EDAPHIC ANALOGY: A RAPID METHOD FOR RESTORATION ANALYSIS AND PLANNING USED AT INDIANA DUNES NATIONAL LAKESHORE "USE OF THE EDAPHIC ANALOGY METHOD OF LANDSCAPE RESTORATION AT INDIANA DUNES NATIONAL LAKESHORE." – JOHN P. TANDARICH, WILBUR WRIGHT CITY COLLEGE OF CHICAGO; DANIEL MASON, INDIANA DUNES NATIONAL LAKESHORE

SIMULATING THE DISTURBANCE OF WILDLIFE BY RECREATING HUMANS TO IMPROVE PARK MANAGEMENT - PATRICK ANDREW ZOLLNER, PURDUE UNIVERSITY

APPLICATAION OF PRIOR REGIONAL HYDROLOGIC STUDIES AT INDIANA DUNES TO FOCUS SCIENTIFIC INQUIRY- PAUL M. BUSZKA, U.S.G.S. INDIANA-KENTUCKY WATER SCIENCE CENTER

#### 2:40 Break

#### 2:55 Challenges and Solutions

FLUORESCENT SIGNATURES OF MICRO-PLASTICS CONTAINED IN SEDIMENTS FROM BEACHES OF SOUTHERN LAKE MICHIGAN - CESAR A. GARCIA AND ZORAN KILIBARDA, INDIANA UNIVERSITY NORTHWEST

CLIMATE CHANGE IN THE GREAT LAKES DUNES: RESPONSES OF THE PLANT COMMUNITY AT SLEEPING BEAR DUNES NATIONAL LAKESHORE - *LUKAS BELL- DERESKE AND JENNIFER RUDGERS, UNIVERSITY OF NEW MEXICO* 

RESILIENCE TO CLIMATE VARIATION IN GREAT LAKES NATIONAL PARKS - ADAM GRIFFITH, UNIVERSITY OF NORTH CAROLINA AT CHARLOTTE; RALPH GRUNDEL AND NOEL PAVLOVIC, U.S.G.S. GREAT LAKES SCIENCE CENTER

CITIZEN SCIENCE AND WETLAND MONITORING: THE CATTAIL CASE STUDY - JOY MARBURGER, PURDUE UNIVERSITY NORTH CENTRAL; BETH MIDDLETON, U.S.G.S. NATIONAL WETLANDS RESEARCH CENTER

ACCESS TO RESEARCH THROUGH THE GREAT LAKES RESEARCH AND EDUCATION CENTER - WENDY SMITH, N.P.S. GREAT LAKES RESEARCH AND EDUCATION CENTER

#### 4:20 Panel Discussion

#### 4:35 Close

#### **Poster Presentations**

Investigating the Origin of Collapse Features at Mount Baldy - *Erin Argyilan and Peter Avis, Indiana University Northwest; Mark Krekeler, Miami University Hamilton, Hamilton; Charles Morris, Indiana Dunes National Lakeshore* 

QUANTIFYING INTERACTIONS OF SURFACE AND GROUNDWATER IN AN INTERDUNAL WETLAND, WEILAND DITCH, INDIANA DUNES NATIONAL LAKESHORE - TRAVIS R. COLE AND DAVID C. LAMPE, U.S. G. S. INDIANA-KENTUCKY WATER SCIENCE CENTER

Inventory of Mayflies, Stoneflies, and Caddisflies in Indiana Dunes National Lakeshore: Comparison to Regional Species Pool – R. Edward DeWalt and Eric South, University of Illinois; Desiree Robertson, Field Museum of Natural History; Joy Marburger and Wendy Smith, Indiana Dunes National Lakeshore; Victoria Brinson, Volunteer

LEARNING BY SERVING: UNDERGRADUATE STUDENTS MONITOR THE EFFICACY OF TRAIL CLOSURE METHODS FOR INDIANA DUNES NATIONAL LAKESHORE - LAURIE EBERHARDT, VALPARAISO UNIVERSITY; LAURA BRENNAN, JOHN KWILOSZ, AND KIMBERLY SWIFT, INDIANA DUNES NATIONAL LAKESHORE

Surveying Dragonfly Biodiversity at the Indiana Dunes National Lakeshore - *Erin Gray and Yuri Lopez, Governors State University* 

METHYLMERCURY POLLUTION IN THE WETLANDS OF INDU AND NORTHWESTERN INDIANA: AN OVERVIEW OF FIELD INVESTIGATIONS - ROBERT HUDSON, UNIVERSITY OF ILLINOIS

### Field Trips, Thursday, April 7 8:00 a.m.

Explore Cowles Bog, the Great Marsh, and Miller Woods with the experts!

Pre-registration for field trips is required by March 25.

Meet at the Indiana Dunes National Lakeshore Visitor Center.





